

# ***Virginia Department of Environmental Quality***

## ***EMS Manual***

The Virginia Department of Environmental Quality (DEQ) has implemented an environmental management system (EMS) based on ISO 14001, the International and American National Environmental Management System Specification. The current scope of the DEQ EMS program covers the internal operations of DEQ and is designed to improve DEQ's environmental performance as an agency. This manual, the *EMS Manual*, contains 1) the E<sup>3</sup>/ISO 14001 required elements, 2) descriptions of the core elements of the DEQ EMS, and, where necessary, 3) directions to related documents and information (click on any highlighted blue topic to access e-index.)

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### 1. Environmental Policy

#### DEQ's Mission Statement and Environmental Policy:

##### *Mission Statement*

*The Department of Environmental Quality protects and enhances Virginia's environment, and promotes the health and well being of the citizens of the Commonwealth.*

##### Environmental Policy

**Commitments:** *The DEQ, in its operations and activities, will demonstrate leadership and environmental stewardship through an EMS that:*

- *Ensures DEQ's compliance with all applicable environmental laws and regulations;*
- *Identifies and implements techniques and environmentally sound practices that emphasize the environmental management hierarchy of pollution prevention (source reduction), reuse, recycling, treatment, and environmentally safe disposal;*
- *Promotes continual improvement in the DEQ's EMS practices and leading to improved environmental performance;*
- *Openly communicates to all employees and the public, the DEQ's EMS policy, our identified environmental aspects, objectives and targets and programs to achieve them, and the results of these efforts;*
- *Provides human, financial and technical resources appropriate to the active management and maintenance of the EMS; and*
- *Encourages all employees, to the best of their abilities, to be accountable for implementing, maintaining, and upholding this policy.*

**Partnership:** *The DEQ will encourage environmental stewardship and foster improved environmental collaboration with stakeholders by:*

- *Exchanging mutually beneficial knowledge with, and encouraging open communication among, all partners including the regulated and non-regulated communities, the general public, DEQ employees, and other State agencies; and*
- *Encouraging and recognizing innovative ideas and solutions.*

**Performance:** *To achieve the goals and objectives of the EMS, and to promote continual improvement, the DEQ will develop and implement an environmental management system that includes:*

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- *A direct link to DEQ's strategic planning and budgeting process;*
- *Appropriate procedures and training; and*
- *Performance measures, self-assessment, and independent assurance reviews.*

This Environmental Policy shall be communicated to all employees by the EMS Manager and maintained on DEQ's website by the Public Affairs Manager.

### **2. Environmental Aspects, Objectives and Targets, and Environmental Management Programs**

#### **2.1. Environmental Aspects & Significant Impacts**

Each year, in the month of February, the EMS Management Workgroup (see Structure and Responsibility, §4) shall 1) develop an inventory of DEQ's environmental aspects and impacts, 2) determine which aspects are potentially significant impacts and 3) use this information in establishing environmental objectives and targets for the upcoming fiscal year.

The results of exercising this procedure shall be maintained by the EMS Manager in a document that records the findings of the EMS Management Workgroup, the environmental objectives and targets, the management programs and plans for achieving them, and progress toward achieving environmental objectives and targets.

#### **2.2. Objectives and Targets**

Concurrent with its determination in February of each year as to which of DEQ's environmental aspects are potentially significant environmental impacts, the EMS Management Workgroup shall establish environmental objectives and targets for the upcoming fiscal year. These Environmental Objectives and Targets shall be documented and maintained by the EMS Manager.

#### **2.3. Environmental Management Programs (Energy, Water, Implementation Plan)**

Concurrent with its determination in February of each year as to which of DEQ's environmental aspects are potentially significant environmental impacts and its establishment of Environmental Objectives and Targets, the EMS Management Workgroup shall establish management plans and programs to achieve the environmental objectives and targets for the upcoming fiscal year. These management plans and programs shall include designation of person(s) responsible for their achievement, means and methods of achievement, and timeframes for achievement. These Management Plans and Programs shall be documented and maintained by the EMS Manager.

### **3. Legal and Other Requirements**

In line with DEQ's Environmental Policy commitment to complying "with all applicable environmental laws and regulations," the Director shall require the Director of Administration

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and each of the Regional Directors to compile archives of relevant environmental laws, regulations, ordinances, and other requirements<sup>1</sup> applicable to the people, activities, and facilities under their control and forward them to the Office of Policy.

The Office of Policy shall maintain this archive of relevant environmental laws, regulations, ordinances, and other requirements in accordance with the Documentation, Document Control, and Records requirements of this manual.

The Office of Policy shall continually monitor and review selected sources of information for new legislation proposed in the Congress of the United States and the Virginia Legislature, and for new regulations and changes proposed by the U.S. Environmental Protection Agency, the Virginia DEQ, and other federal and state agencies, applicable to the people, activities, and facilities of the DEQ, and shall forward such information to the Director of Administration and the Regional Directors, as appropriate.

The Regional Directors shall continually monitor and review selected sources of information for new environmental ordinances and changes proposed by the municipalities within their regions and shall forward such information to the Office of Policy.

The EMS Manager shall periodically monitor and review identified other requirements<sup>1</sup> to determine their ongoing consistency with DEQ's Environmental Policy and shall apprise the Director of Administration and/or Regional Directors of any new requirements or conflicts brought about by changes in other requirements.

The Director of Administration and each of the Regional Directors, shall at least annually

- Determine which laws, regulations, ordinances, and other requirements their area of DEQ is *prima facie* in compliance with;
- Determine which laws, regulations and other requirements their area of DEQ is *prima facie* not in compliance with; and
- Establish management plans to achieve full compliance.

These management plans shall be submitted to the Deputy Director who shall ensure that they are effectively carried out.

#### **4. Structure and Responsibility**

The EMS Management Workgroup, a permanent program team with members appointed by the Director, representing agency functions and offices, and with at least three representatives from the Executive Management Team (EMT), shall be responsible for establishing and maintaining the EMS and ensuring its conformance with ISO 14001 and DEQ's E<sup>3</sup> Program.

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<sup>1</sup> Other requirements are those charters, principles, guidelines, codes of conduct, or by-laws of organizations that DEQ supports or is affiliated with in any way as well as the requirements imposed by federal grants.

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The EMS Manager shall lead the EMS Management Workgroup, ensure the day-to-day maintenance of the EMS, and be accountable to the Director for the performance of the EMS.

The Director and the EMT shall be responsible for providing the resources essential to the implementation and control of the EMS.

An EMS Management Team, comprised of the Director and members of the EMT, shall have overall responsibility for implementation and maintenance of the EMS, and shall annually in November review the EMS for suitability, adequacy, and effectiveness.

EMS Assessment Team - an Ad Hoc Team to conduct annual conformance audit in October.

Agency Office Team is responsible for conducting implementing plans for each office and floor.

### **5. Training, Awareness, and Competence**

#### **5.1. General Awareness Training**

All DEQ employees shall receive general awareness EMS training. In the initiation of the EMS during 2001, Director of the Office of Pollution Prevention shall prepare a core general awareness training package and deliver this training, with the assistance of other EMS Management Workgroup members, to all of DEQ's approximately 900 employees. The general awareness training subjects shall include the Environmental Policy, the potentially significant environmental impacts, the objectives and targets, and employees' roles and responsibilities in conforming with the requirements of the EMS.

Thereafter, the DEQ Training Manager shall ensure that EMS general awareness training shall be embedded in the overall DEQ training curriculum being developed by the DEQ Training Committee.

#### **5.2. Significant Impact Training**

Concurrent with its determination in February of each year as to which of DEQ's environmental aspects are potentially significant environmental impacts, the EMS Management Workgroup shall identify the training needs of personnel whose work can cause a significant impact on the environment, determine the criteria for personnel competence, and recommend timeframes for delivery of training to the DEQ's Training Committee. These training needs shall become a part of the Environmental Objectives and Targets for the upcoming fiscal year.

The Training Committee shall determine the means and methods for delivery of this significant environmental impact training subject to DEQ's overall mission requirements.

#### **5.3. Training Records**

Records of training related to the EMS shall be established and maintained by the DEQ's Training Manager in accordance with Virginia's record retention policy for state agencies.

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## **6. Communication**

### **6.1. Internal Communication**

In line with its Environmental Policy commitment of “*encouraging open communication among all... DEQ employees,*” DEQ will communicate to all levels and functions within DEQ relevant information about major areas of EMS activity, including:

- Environmental aspects and impacts
- Environmental objectives and targets
- Environmental management roles and responsibilities
- DEQ’s performance compared to its environmental objectives and targets
- Environmental policies and procedures

The EMS Manager shall be responsible for ensuring that this procedure is carried out.

### **6.2. External Communication**

In line with DEQ’s Environmental Policy commitment to “*encourage environmental stewardship and foster improved environmental collaboration with stakeholders,*” DEQ will establish and maintain open communication channels for the exchange of mutually beneficial knowledge and information with all external, interested parties.

#### **6.2.1. Receipt of External Communications**

Any employee receiving a communication about the EMS or DEQ’s environmental performance from an external party shall refer that communication to either the EMS Manager, the Director of Administration or appropriate Regional Director for a decision on response. The EMS Manager shall make all such responses on behalf of the DEQ and shall maintain records of all incoming environmental communications, including non-written communications, and of their disposition.<sup>2</sup>

#### **6.2.2. Outreach**

It is appropriate for DEQ to initiate community outreach efforts on its Environmental Policy and the EMS. Outreach efforts shall be the responsibility of the **EMS Management Workgroup** which shall establish outreach objectives when establishing DEQ’s other Environmental Objectives and Targets. Such outreach objectives shall be consistent with the Environmental Policy. The Management Review Team shall consider outreach efforts and results when conducting the Management Review of the EMS.

#### **6.2.3. Website**

DEQ will maintain information on its website about the Environmental Policy, the EMS, its environmental impacts, and its environmental objectives and targets. The EMS Manager, in

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<sup>2</sup> Responses on requests for information about the EMS and DEQ’s environmental performance shall be made by the Public Affairs Manager.

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collaboration with the Public Affairs Manager, shall be responsible for establishing and maintaining this information.

## **7. EMS Documentation and Document Control and Records**

### **7.1.EMS Documentation**

This EMS Manual describes the core elements of the EMS and provides direction to related materials. ISO 14001, in its various sections, requires that, at a minimum, the following policies, procedures, and delegations of authority be documented:

- The Environmental Policy
- The Environmental Objectives and Targets
- EMS Roles, Responsibilities, and Authorities
- Description of the Core Elements of the EMS
- Operational Procedures whose absence could result in deviations from the Environmental Policy or failure to achieve environmental objectives and targets
- Procedures to monitor and measure key characteristics of activities and operations that can have a significant impact on the environment
- Procedure for periodically evaluating compliance with environmental regulations
- Results of top management reviews of the EMS

This EMS Manual shall either contain these policies, procedures, and delegations of authority within its text or provide direction to users as to where they are contained.

Maintenance of the EMS Manual shall be the responsibility of the EMS Manager.

### **7.2.EMS Document Control**

The EMS Manager shall maintain and control the *EMS Manual* and all other documents associated with it, such as the environmental objectives and targets, management plans to achieve them, and records of progress toward achievement. In maintaining and controlling the *EMS Manual*, the EMS Manager shall ensure that the *EMS Manual* and its associated documents are posted on the DEQNET and that updates adding new information and/or removing obsolete information are made immediately following any agreed changes to documents.

The EMS Manager shall preserve an original of all documents and changes, establish and maintain a record of all document changes, and ensure that all documents are numbered, dated with dates of origination or revision, and, where necessary, signed and approved.

### **7.3.EMS Records**

§3 of this manual requires that the Office of Policy shall maintain an archive of relevant environmental laws, regulations, ordinances, and other requirements. §5.3 of this manual requires that the DEQ's Training Manager shall be responsible for maintaining records of training. §6.2.1 of this manual requires that the EMS Manager shall maintain a record of all incoming external environmental communications and of their disposition.

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In addition to these recordkeeping requirements, the EMS Manager shall maintain records of findings and recommendations from EMS and regulatory compliance audits and documents, exhibits, and minutes of management reviews. All EMS records shall be permanently maintained unless and until Virginia's record retention policy establishes a lesser requirement.

### **8. Operational Controls**

#### ***8.1. Operational Controls over Significant Impact Activities and Operations***

Concurrent with its determination in February of each year as to which of DEQ's environmental aspects are potentially significant environmental impacts, the EMS Management Workgroup shall identify the operations and activities associated with these potentially significant environmental impacts and direct the manager of the operation or activity involved to establish and maintain operational controls to avoid the occurrence of a significant environmental impact, deviations from the Environmental Policy, or failure to achieve environmental objectives and targets. The operational control opportunities identified shall become a part of the Environmental Objectives and Targets for the upcoming year.

#### ***8.2. Operational Controls for Goods and Services Used by DEQ***

Concurrent with its determination in February of each year as to which of DEQ's environmental aspects are potentially significant environmental impacts, the EMS Management Workgroup shall 1) review the goods and services used by DEQ and supplied by others and 2) determine the potential significant environmental impacts associated with these goods and services. The EMS Manager shall communicate relevant procedures and requirements to the suppliers and contractors of these goods and services in order to reduce the adverse environmental impacts of these goods and services.

### **9. Emergency Preparedness and Response**

The EMS Management Workgroup has established a subcommittee, the Emergency Response Subcommittee, which shall have as one of its members the DEQ's Safety Director and shall operate until replaced by a DEQ Program Team or other mechanism that conforms to the emergency preparedness and response requirements of ISO 14001.

Each year, in the month of October, the Emergency Response Subcommittee shall 1) develop an inventory of DEQ's emergency and accident exposures, 2) determine which of these emergency and accident exposures are significant, and 3) establish emergency and accident risk management objectives and targets for the upcoming fiscal year. In establishing its objectives and targets, the Emergency Response subcommittee shall pay particular attention to preventing and mitigating the environmental impacts associated with emergency and accident situations.

The Emergency Response Subcommittee shall review and revise the elements of the Emergency Preparedness and Response Plan based on its determination of which emergency and risk exposures are significant and following the occurrence of an accident or emergency situation.

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The EMT shall periodically and where practicable, direct the test of such emergency response procedures.

**10. Monitoring and Measurement**

**10.1. Monitoring and Measurement of Significant Impact Activities and Operations**

Concurrent with its determination in February of each year as to which of DEQ's environmental aspects are potentially significant environmental impacts, the EMS Management Workgroup shall identify the operations and activities associated with the potentially significant environmental impacts and establish procedures to monitor and measure key characteristics of these operations and activities in order to avoid the occurrence of significant environmental impacts, deviations from the Environmental Policy, or failure to achieve environmental objectives and targets. The monitoring and measurement activities established shall become Environmental Objectives and Targets for the upcoming fiscal year.

**10.2. Evaluation of Compliance with Legislation and Regulations**

The EMT shall be responsible for evaluating actual compliance with relevant environmental laws and regulations. The EMS Manager shall assist the EMT in fulfilling this responsibility by arranging for the conduct of environmental regulatory compliance audits by a team of internal auditors in October of each year and by external auditors in October once every five years.

To the extent reasonably practicable, internal auditors shall be independent of people and activities audited. External auditors shall be independent of people and activities audited. Both internal and external auditors shall be competent by virtue of training and experience to perform environmental regulatory compliance audits.

Audit reports shall be submitted to the EMS Management Team for its use in conducting the Management Review of the EMS in November of each year.

**11. Nonconformance and Corrective or Preventive Action**

**11.1. General**

The DEQ shall investigate all instances of nonconformance with the EMS and take appropriate mitigating, corrective, or preventive action. The objective of nonconformance investigations shall be to identify the root causes of actual or potential nonconformances. Events that constitute a nonconformance sufficient to automatically trigger a nonconformance investigation include:

- Adverse findings of an EMS or regulatory compliance audit;
- Discovery of noncompliance with an environmental law, regulation, ordinance, or other requirement;
- Occurrence of a sudden, catastrophic event;
- Any incident that, except for fortuitous circumstances, could have resulted in a sudden, catastrophic event;

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- Failure to achieve environmental objectives and targets;
- Material noncompliance with the Environmental Policy; and
- Such other nonconformances as might from time to time be identified.

#### **11.2. *Nonconformances within a Region or the Central Office***

If a Regional Director or the Director of Administration receives notice of an EMS nonconformance within her/his jurisdiction, the Regional Director or Director of Administration shall establish an investigative committee appropriate to the circumstances of the nonconformance and take such mitigating, corrective, or preventive actions as are warranted after receiving the report of the committee.

#### **11.3. *Agency-wide Nonconformances***

If the EMS Manager receives notice of an EMS nonconformance involving the agency as a whole or more than one Region and/or the Central Office, the EMS Manager shall establish an investigative committee appropriate to the circumstances of the nonconformance and take such mitigating, corrective, or preventive actions as are warranted after receiving the report of the committee.

#### **11.4. *Individual Employee Nonconformance***

If it is determined that an employee has intentionally violated the Environmental Policy or any of the EMS, is the cause of an EMS nonconformance, or has not abided by the EMS requirements, the Agency will apply the Department of Human Resource Management (DHRM) Policy 1.60, *Standards of Conduct*, appropriately to the circumstance.

### **12. *Environmental Management System Audits***

The EMS Management Workgroup shall be responsible for ensuring that the EMS conforms to the requirements of ISO 14001 and DEQ's Exemplary Environmental Enterprise and is properly implemented and maintained. The EMS Management Workgroup shall verify that this responsibility is effectively carried out by arranging for the conduct of EMS audits by a five-person team of internal auditors in October of each year and by external auditors in October once every five years.

To the extent reasonably practicable, internal auditors shall be independent of people and activities audited. External auditors shall be independent of people and activities audited. Both internal and external auditors shall be competent by virtue of training and experience to perform EMS audits.

Audit reports shall be submitted to the Management Review Team for its use in conducting the Management Review of the EMS in November of each year.

### **13. *Management Review***

The EMS Management Team shall each year in the month of November review the EMS to ensure its continuing suitability, adequacy, and effectiveness. Minutes of the review meeting shall be taken in order to document all issues discussed, decisions made, and actions directed.

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The EMS Manager shall permanently maintain a record of all documents, exhibits, and minutes of the Management Review.

The EMS Management Team shall determine how the EMS has performed by evaluating:

- The appropriateness of the Environmental Policy to the nature, scale, and environmental impacts of DEQ's activities, products, and services;
- The effectiveness of the EMS in accomplishing top management's objectives for an EMS;
- Changing circumstances which influence the suitability, effectiveness, or adequacy of the EMS;
- The adequacy of roles, responsibilities, authorities, and procedures to accomplish the objectives of the EMS;
- The extent to which environmental objectives and targets have been achieved;
- The adequacy of the human, financial, and technological resources provided by management to accomplish the implementation and control of the EMS;
- The results of the determination of which environmental laws, regulations, and ordinances DEQ is subject, which it is in compliance with, and the plan to achieve compliance with all relevant environmental laws, regulations, and ordinances;
- The results of environmental regulatory compliance audits and EMS audits;
- The results of monitoring and measuring activities and operations associated with the significant environmental impacts;
- The achievement of EMS outreach objectives in line with the Environmental Policy;
- The extent to which the DEQ meets the requirements for an Exemplary Environmental Enterprise under DEQ's Environmental Excellence Program; and
- The extent to which the EMS has been improved in the current execution cycle.

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